The opinion in support of the decision being entered today was ***not*** written for publication and is ***not*** binding precedent of the Board.

Paper No. 9

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte ARNAB DAS and RAJENDRA K. TALLURI

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Appeal No. 2000-2080
Application 09/287,226

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ON BRIEF

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Before JERRY SMITH, BARRETT, and FLEMING, ***Administrative Patent Judges***.

FLEMING, ***Administrative Patent Judge.***

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 2-3. Claim 1 has been canceled. Claims 4-7 have been allowed by the Examiner.

The present invention is directed to a bitstream syntax comprising groups of consecutive bits (specification, page 30, line 14 through page 31, line 12). In general, error concealment is provided in motion-compensated digital video coding by use of inserted resynchronization bit patterns in a coded video bitstream (specification, pages 29-32).

Independent claim 2 is as follows:

2. A motion-compensated video bitstream syntax, comprising:

(a) a first group of consecutive bits in a bitstream, said first group encoding at least two motion vectors;

(b) a second group of consecutive bits following said first group of bits in said bitstream, said second group of bits forming a resynchronization word; and

(c) a third group of consecutive bits following said second group, said third group encoding texture data associated with said motion vectors.

The Examiner does not rely on any references.

Claims 2-3 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the brief[1] and

[1] The brief was received January 24, 2000.

answer[2] for the respective details thereof.

OPINION

After a careful consideration of the record before us, we will sustain the rejection of claims 2-3 under 35 U.S.C. § 101.

The Federal Circuit in ***State Street Bank v. Signature Financial***, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998), first identified the three categories of subject matter that are not patentable--laws of nature, natural phenomena and abstract ideas. The opinion went on to note "the mathematical algorithm is unpatentable only to the extent that it represents an abstract idea" and is thus not "useful." ***Id.*** 149 F.3d at 1373 n.4, 47 USPQ2d at 1600-01 n.4. Later in its opinion, the court returned to this issue:

> [T]he mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a 'useful, concrete and tangible result.'

[2] The Examiner responded to the brief with an Examiner's answer, mailed May 9, 2000.

Id. 149 F.3d at 1374, 47 USPQ2d at 1602. In this case, the court stated that "the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm . . . because it produces 'a useful, concrete and tangible result' . . . ." ***Id.*** 149 F.3d at 1373, 47 USPQ2d at 1601.

Significantly, the court concluded its analysis of the mathematical algorithm issue as follows:

> The question of whether a claim encompasses statutory subject matter should not focus on ***which*** of the four categories of subject matter a claim is directed to . . . but rather on the essential characteristics of the subject matter, in particular, its practical utility.

Id. 149 F.3d at 1375, 47 USPQ2d at 1602. With respect to the Freeman-Walter-Abele test, the Federal Circuit held the district court erred in applying it. According to the court, after ***Diehr*** [602 F.2d 982, 203 USPQ 44 (CCPA 1979)] and ***Chakrabarty*** [571 F.2d 40, 197 USPQ 72 (CCPA 1978)] were decided by the Supreme Court, the test had "little, if any, applicability to determining the presence of statutory subject matter." ***Id.*** 149 F.3d at 1374, 47 USPQ2d at 1601.

In regard to claim 2, the preamble clearly states that the invention is, "A motion-compensated video bitstream syntax, comprising:" (emphasis added). The body of this claim provides for three consecutive groups of consecutive bits representing respectively, vectors, a resynchronization word, and texture data.

We agree with the Examiner[3] that the claimed bitstream is an abstraction and not a "physical thing" as argued by Appellants[4]. Appellants assert that between creation and decoding of the bitstream it is either in transmission as an electromagnetic wave or in storage in machine-readable form. However, a careful inspection of claim 2 reveals absolutely no recording medium for the bitstream, or its being in transmission. In fact, we find that this claim sets forth merely the disembodied bitstream syntax, without reference to computer operation or its actual use for motion compensation.

[3] Answer, page 2.

[4] Brief, page 3.

Appellants' argument[5] that the bitstream is not an abstract data structure because it evolves, is not cogent. Merely because bits in a word change over time does not mandate that they are not an abstraction. Furthermore, claim 2 does not provide for any change in the bitstream, and provides the order of bits in a bitstream without any recitation of it being in use, or otherwise in transformation.

Therefore, we find that Appellants' bitstream syntax as claimed is only an abstraction and *per se* does not produce a "useful, concrete and tangible result." Therefore, we find that claim 2 recites non-statutory subject matter.

Claim 3 is dependent upon claim 2 and recites a fourth group of bits, in addition to the three groups of bits recited in claim 2. Therefore, this claim falls for the same reasons set forth above for claim 2. In addition, we note that Appellants have not separately argued this claim, and have grouped it[6] with claim 2.

In view of the foregoing, the decision of the Examiner rejecting claims 2-3 under 35 U.S.C. § 101 is affirmed.

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[5] Brief, page 3.

[6] Brief, page 3.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JERRY SMITH Administrative Patent Judge	)	
LEE E. BARRETT Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
MICHAEL R. FLEMING Administrative Patent Judge	)	

MRF:pgg

Leonard Charles Suchyta
GTE Laboratories, Inc.
40 Sylvan Road - MS31
Waltham, MA 02254